GOVERNMENT OF ANDHRA PRADESH
ABSTRACT

Greening of Andhra Pradesh – Planting programme on World Environment Day (WED) on 5th June of every year – Implementation guidelines – Reg.

ENVIRONMENT, FORESTS, SCIENCE & TECHNOLOGY (SEC-II) DEPT

G.O.RT.No. 74 **Dated: 02-06-2025**

1. G.O.Ms.No.71, EFS&T (Sec.II) Dept., dated 23.07.2016,
2. G.O.Rt.No.129, EFS&T (Sec.II) Dept., dated 30.06.2017.
3. G.O.Rt.No.70, EFS&T (Sec.II) Dept., dated 24.05.2018.
4. G.O.Rt.No.74, EFS&T (Sec.II) Dept., dated 27.08.2024.

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ORDER:

Andhra Pradesh currently holds 29% of its land under tree cover. The State Government has set a monumental target to enhance this to 50% by the year 2047. This ambitious goal will be achieved through extensive greening initiatives across various land types, including those available with farmers, the Revenue department, institutional lands, and areas alongside roadsides, railway lines, and canals. This transformative afforestation campaign, covering an approximate geographical area of 1,62,923 Sq.km, involves planting both inside and outside forest areas.

2. The overarching objective of this mission is to bolster agricultural and environmental resilience, enrich ecosystem services and biodiversity, and mitigate floods by stabilizing soils, reducing erosion, and moderating water flow and its infiltration in the soil. Furthermore, it aims to uplift rural livelihoods, generate increased on- and off-farm employment opportunities, and foster a robust state economy. The State envisions achieving 37% Green Cover by 2029, at an incremental annual rate of 1.5%.

3. The total green cover of the State is 48,978.22 Sq.Km (30.05% of geographical area), which comprises Recorded Forest Area (22.96%) and Trees Outside Forest (7.09%). To achieve 50% green cover, an additional 19.95% of the total geographical area, i.e., 32,483.28 Sq.Km, needs to be planted.

I. World Environment Day (WED):

a) District Planting Plans for the year 2025-26 have been meticulously prepared, encompassing all line departments and stakeholders across every district. These plans integrate

departmental schemes and all other Government (both State and Central) schemes that include a planting component, such as MGNREGS (FD & RD), Paper Mills, CSR, APFDC, CAMPA, Mixed Plantations, MISHTI, Horticulture, and Agroforestry.

b) A specific target has been set to plant **5,58,82,971** trees/saplings over an extent of **1,79,815.78 ha** across the State, including the Horticulture Department, for the 2025 planting season.

c) On World Environment Day (WED) i.e.,, 5th June 2025, the "Vana Mahotsavam" programme will be launched as follows :

i) State Level Launch: The Hon'ble Chief Minister of Andhra Pradesh, alongside the Hon'ble Deputy Chief Minister and Minister of EFS&T Department, will officially launch "Vana-Mahotsavam – celebration of planting programme" and initiate its implementation.

ii) District Level Launch: The Hon'ble Minister in-charge of each District, accompanied by other Hon'ble Ministers and People's representatives, will launch the Programme in all Districts on the same day, ensuring active involvement of all citizens.

iii) Widespread Launch: Similar launches will be conducted in every Constituency, Mandal, Village, Urban Local Body (ULB), and every public and private institution, including schools, colleges, universities, industries, and religious institutions, on June 5th, 2025.

d) Planting will occur in all available vacant Government lands, Endowment lands, Railway lands, Housing Colonies, Homesteads, Roads, Canals, Degraded Forest lands, Schools, Colleges, Universities, Hostels, lands surrounding Industries and SEZs, and bunds of farm lands, utilizing appropriate plant species.

e) The State anticipates a record planting of **1.00 Crore** seedlings by various Departments and other entities across the State on World Environment Day (5th June, 2025).

II. People's Participation and Awareness Campaign:

a) The ambitious goal of achieving 50% green cover through the "Vanam-Manam" programme is contingent upon the active and sustained participation of every citizen of Andhra Pradesh. This initiative is a truly "Glocal" undertaking, signifying Local Action

for both local and global benefit. Beyond its environmental and climate change impact, the program seeks to strengthen the bond between nature and people.

b) To ensure effective and sustained mobilization, a massive public information campaign is critical, not only for the initial launch but for maintaining momentum throughout the year and beyond. Immediate and ongoing activities will include:

i. Widespread dissemination of information through print and electronic media, FM Radio, film theaters, town-hall meetings, and street-level meetings.
ii. Organizing essay writing, painting, quiz, and elocution competitions for school and college students to foster awareness and proactive participation.
iii. Conducting Green Runs, Cycle Rallies, and Eco walks on various days.
iv. Organizing lectures and panel discussions on climate change concerns, environment, and biodiversity conservation issues.
v. Screening films and documentaries on forests and wildlife conservation in schools, colleges, universities, and theaters.

c) Headmasters of Schools, Principals of Colleges, Vice-Chancellors of Universities, and Persons in charge of Residential schools and Hostels shall ensure cent percent participation of teachers/faculty and students in promoting awareness and proactive involvement in plantation and protection of saplings. The participation of religious and social leaders, civil society institutions, community institutions, and self-help groups is crucial for spreading awareness.

d) A Facebook page and Twitter handle (@Vanam-Manam) have been launched to facilitate social media engagement, providing a platform for citizens to post views, suggestions, inputs, pictures, and videos of plantation efforts. Inspirational slogans, songs, and video-clippings on relevant themes should be posted on social media.

III. Programme Implementation Guidelines:

a) Micro-level Plantation Plans must be prepared for every village/ULB, covering vacant lands, institutions, industries, roads, canal bunds, degraded forest areas, and homesteads. The Departments of Forest and Horticulture are responsible for the

production and delivery of appropriate plant material as determined by the District Collector. Each plan must include measures for plantation, protection, watering, and maintenance of plants for a minimum of four to five years. Only species appropriate to the specific area should be chosen. Planting shall commence only after adequate preparation, ensuring all essential safeguards for the security and maintenance of plants.

b) The "Vanam-Manam" programme is fundamentally a people's programme, with the Government's role being to facilitate and support citizen initiatives. Every planted sapling must have a "guardian" – an individual or a group – responsible for its protection, watering, manuring, and nourishment. In institutions, the head of the institution shall assign responsibility for plant maintenance to staff and students. The active involvement of people's representatives, government officials, academicians, NGOs, school children, college students, members of DWCRA Groups, SHGs, VSSs, media representatives, industries, corporate enterprises, paper mills, CII, FICCI, temples, churches, mosques, and other faith-based institutions is essential.

c) Plantation activities will continue throughout the rainy season after the June 5th launch. Thereafter, measures for protection and watering will continue, along with preparatory activities for the 2025 plantation season. Delivery of saplings for the launch day must commence immediately, ensuring careful maintenance at the site until planting. Care must be taken to prevent physical damage or 'transport shock' during transit from nursery to planting site.

d) All plants, if not in blocks, should be geotagged, and if in blocks, should be geo-fenced. The application for geo-tagging is available on the FMIS platform, and separate instructions will be issued in this regard. All plants planted under "Vanam-Manam" should be geo-tagged and monitored by respective departments.

IV. Programme Coordination:

a) The District Collector will serve as the central coordinator, overseeing the entire program, including planning, implementation, follow-up actions, plant protection, preparatory activities for the 2025 plantation season, and overall monitoring.

b) A District Vanam-Manam Programme (DVMP) Committee is hereby established in every district, chaired by the District In-charge Minister, with the District Collector as the Member-

Secretary. This Committee will include Ministers belonging to the District, key district officials, people's representatives, media representatives, industry representatives, banks, educational institutions, ULB representatives, and citizens passionate about the environment. The District Collector will issue a notification constituting the DVMP Committee after obtaining approval from the District In-charge Minister. The Committee will meet frequently to plan, coordinate, and monitor the programme. Officials from the Forest and Horticulture Departments will assist and support the DVMP Committee. A senior IFS Officer or a senior IAS officer has been appointed to support the District Vanam-Manam Programme Committee in each district. All Nodal Officers are directed to undertake intensive tours, review plantation plans, revise and upgrade where necessary, closely monitor implementation, and ensure compliance.

c) The District DVMP Committee will establish similar committees at the Division, Mandal, Village, and ULB levels to ensure seamless planning, coordination, and monitoring of the "Vanam-Manam" Programme implementation. The head of every institution (offices, schools, hospitals, projects, public sector enterprises, etc.) will be responsible for programme implementation within their premises.

d) The District Collectors are instructed to take immediate measures for the successful launch and effective implementation of "Mission Haritha Andhra Pradesh". The Principal Chief Conservator of Forests (PCCF) and Commissioner Horticulture are requested to instruct their field officials to provide proactive support. The Secretary/Commissioner of Education and Welfare Departments are requested to issue instructions to all institutions under their control. All Secretaries to Government and Heads of Departments (HODs) are requested to instruct their officials/autonomous institutions/public sector enterprises to participate vigorously.

V. Robust Monitoring Mechanism:

a) To ensure transparency, accountability, and real-time management, a robust ICT-enabled framework will be rigorously implemented.

i. **Geo-Tagging of Plantations:** All plantation activities will be geo-tagged using dedicated mobile applications (Android and iOS) by field staff, capturing GPS coordinates, planting dates, sapling species and

numbers, land ownership, responsible department, and "before & after" photographs.

ii. **Centralized Spatial Database:** All geo-tagged data will be stored in a cloud-hosted spatial database (e.g., Post GIS) with unique IDs, categorized by district, department, and scheme. Periodic updates on plantation health, survival rates, and growth status will be uploaded, with role-based access controls ensuring data security.

iii. **Satellite-Based Verification and Analytics:** Integration with satellite imagery platforms (ISRO's Bhuvan, Sentinel-2) will allow overlaying plantation locations on high-resolution data. NDVI and NDRE indices will be analyzed over time to assess vegetation health and growth trends, with successful verifications tagged as "Satellite Verified".

iv. **Drone-Based Spot Verification:** Drones with AI-driven canopy and sapling detection capabilities will be deployed for spot verifications in selected high-risk or randomly sampled areas. Geo-tagged images will be analyzed to count saplings, identify gaps, and assess canopy health, providing high-resolution ground truth.

v. **Manual and Third-Party Ground Verification:** Forest Department auditors and external evaluators will conduct physical inspections, assessing survival rates and tree health. Audit findings, photographs, and remarks will be uploaded to the system.

vi. **Data Consolidation and Scoring Engine:** A backend analytics engine will consolidate data from all sources (satellite, drone, manual audits) to calculate a comprehensive "Verification Score" for each plantation record, ensuring reliability. Aggregated scores will inform performance evaluations and resource allocation.

vii. **Real-Time Dashboards:** Interactive, role-based dashboards will provide key stakeholders (Chief Minister, Deputy Chief Minister, Collectors, PCCF, etc.) with real-time metrics, live maps of geo-tagged plantations, survival rates, and performance indicators. A public-facing portal may also be launched to enhance transparency and citizen engagement.

b) After planting, necessary care must be taken for the survival of the plants. The Tree Guardian will be responsible for protection, watering, application of manure, and proper nourishment to the plant.

4. All departments, district administrations, local bodies, educational institutions, industries, and citizens are hereby directed to extend their full cooperation and actively participate in the successful implementation of the "Mission Haritha Andhra Pradesh / Vanam-Manam Programme." This order comes into force with immediate effect.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

G. ANANTHA RAMU
SPECIAL CHIEF SECRETARY TO GOVERNMENT

To :

All District Collectors.
All Special Chief Secretaries /Principal Secretaries/ Secretaries/Special Secretaries to the Government.
All Heads of all Government Departments.
The Principal Chief Conservator of Forests and Head of Forest Force.
The Commissioner and Ex-Officio Secretary to Government, Horticulture Department.
The Commissioner of Rural Development and Panchayat Raj.
The Commissioner School Education /Intermediate Education.
The Commissioner Collegiate Education.
The Chief Executive Officers of all Public Sector Enterprises.
The Managing Director, Swachh Andhra Corporation.
All Vice-Chancellors of Universities and Heads of Autonomous Institutions.
Commissioners of all Urban Local Bodies in the State.

Copy to the following for information and necessary action:

The Chief Secretary to the Government.
The Communications Advisor to the Hon'ble Chief Minister.
The Principal Secretaries/Additional and Joint Secretary to the Hon'ble Chief Minister.
The OSD / PS to all Hon'ble Ministers with a request to bring to the notice of the Hon'ble Ministers,
The Registrar-General of Hon'ble High court of Andhra Pradesh.
The Secretary General to the State Legislature.
The President of Confederation of Indian Industries (CII)/FICCI
All Chief Conservators of Forests / Conservators of Forests/DFOs in the State.
All Project Directors of DRDAs and DWAMA in the State.

//FORWARDED BY ORDER//

SECTION OFFICER

ACTION PLAN FOR WORLD ENVIRONMENT DAY 2025-26

Andhra Pradesh currently has 29% land under green (tree) cover. The State Government has set a target of increasing this to 50% by 2047 by greening various types of land available with the farmers, Revenue department, institutional lands, lands along roadside, railway lines and canals. This approach is to enhance agricultural and environmental resilience, improve ecosystem services and biodiversity, mitigate floods by stabilising soils, reducing erosion, moderating water flow and its infiltration in soil; improve rural livelihoods, increase on- and off-farm employment opportunities, and a well-developed state economy.

The Government of Andhra Pradesh is committed to a transformative afforestation campaign to increase the State's green (tree) cover from the current 29% to 50%, covering a geographical area of approximately 1,62,923 Sq.km which involves planting inside and outside forest areas.

Status of Forests

1	Total Geographical Area	:	**1,62,923** Sq.Km.
2	Recorded Forest Area	:	**37,421** Sq.Km (22.96 % of the geographical area)
	a. Very Dense Forest (VDF) Area	:	**1925.32** Sq.Km. (5.19 % of Recorded Forest Area)
	b. Moderately Dense Forest (MDF) Area	:	**12469.70** Sq.Km (33.62% of Recorded Forest Area)
	c. Open Forest (OF)	:	**9472.74** Sq.Km (25.54 % of Recorded Forest Area)
	d. Scrub	:	**4799.39** Sq.Km
	e. Rest of the Area i.e., Grass Lands, Water Bodies and Blank Areas	:	**8753.85** Sq.Km

3	Total Green cover of State	:	**37,421 + 11,557.22 (TOF) = 48,978.22** Sq.Km. 30.05 % of geographical area (Recorded Forest Area: 22.96 + Trees outside Forest: 7.09 %)
4	Additional area to be planted to get 50% Green cover	:	**Additional 19.95% of total geographical area** **i.e., 32,483.28 Sq.Km to be planted**

Tree outside Forest

As per the ISFR, the trend in the status of TOF from 2015 is as follows

S. No.	Year	Geographical Area (Sq .Km)	Extent of TOF (Sq.Km)	% of Geographical Area
1	2015	162923	6857	4.21
2	2017	162923	7451	4.57
3	2019	162923	8932	5.48
4	2021	162923	10224	6.27
5	2023	162923	11557.22	7.09

The State of Andhra Pradesh is showing a positive trend especially in the trees outside forest. Taking into account the trend, the state envisions to achieve 50 % Green cover by 2047. It aims to achieve 37% Green Cover by 2029 at an incremental annual rate of 1.5%.

Five year action plan for Green cover increase to 37%				
S. No.	Year	Forest Department/ Rural Development / Line Departments/ Agencies/etc., (in Ha.)	Horticulture Department (in Ha.)	Total Area
1	2025-26	66480.78	112970.00	179450.78
2	2026-27	72689.00	117895.00	190584.00
3	2027-28	75909.57	123048.00	198957.57
4	2028-29	76371.00	128449.00	204820.00
5	2029-30	79693.00	134071.00	213764.00

Total:	**371143.35**	**616433.00**	**987576.35**

Action Plan for 2025-26

District Planting Plans for the year **2025-26** have been prepared covering all line departments and other stakeholders for each District covering departmental schemes and all other State and Central schemes where planting component is included. For eg: MGNREGS (FD & RD), Paper Mills, CSR, APFDC, CAMPA, 09 Mixed Plantations, MISHTI, Horticulture, Agroforestry (planting by department and planting by farmers institutional planting, canal bank, avenue along railway lines etc., shelterbelt, mangrove restoration works etc.,

A target has been fixed to plant **5,58,82,971** number of plants/saplings in over an extent of **1,79,815.78 ha** across the State in all the Districts for the year 2025 planting season including Horticulture Department.

Launching Vana Mahotsavam programme on World Environment Day (June 5th, 2025)

State Level launch: Hon'ble Chief Minister of Andhra Pradesh and Hon'ble Deputy Chief Minister and Minister of EFS&T, PR&RD, RWS of Andhra Pradesh will launch "Vana-Mahotsavam – celebration of planting programme and initiate the implementation of the programme.

District level launch: The Hon'ble Minister in-charge of the District along with other Hon'ble Ministers, and People's representatives will launch the Programme in all the Districts on the same day with the active involvement of all citizens of the area. Similar launch will be done in every Constituency, Mandal, Village, Urban Local Bodies and every institution in the State - both public and private - every school, college, university, Industry, religious institutions etc., on the same day.

All the vacant Government lands, Endowment lands, Railway lands, Housing Colonies, Homesteads, Roads, Canals, Degraded forest lands, Schools, Colleges, Universities, Hostels, Lands surrounding Industries and SEZs, bunds of farm lands etc., will be planted in every Mandal depending on the availability of plantation area, using appropriate native plant species.

The State envisage celebration of World Environment Day (WED) (i.e., 5th June, 2025), with record planting of 1.00 Crore seedlings by various Departments and others across the State.

Sl. No.	Name of the Department	No. of seedlings to be planted (in Lakh)
1.	Forest	37.00
2.	APFDC Ltd.,	02.00
3.	Rural Development	30.00
4.	APPCB	10.00
5.	Horticultural	01.00
6.	APUG&BC	4.70
7.	Paper Mills	15.30
	TOTAL:	**100.00**

People's participation in the programme

The goal of 50 % Green cover is to be achieved through Vanam-Manam programme which can be realized only through citizen participation. Each and every citizen of Andhra Pradesh across the social, economic, demographic, geographic, gender, and political spectrum ought to become partners in this programme that would benefit not only the State but also the Nation and the entire world through eco-regeneration. The Vanam-Manam Programme is a truly Glocal (Local Action for local and global benefit) initiative. Apart from its impact on environment and climate change, the programme is an effort to strengthen the bond between the nature and people. Therefore, effective and sustained mobilization of all citizens through massive public information campaign is critical not only for the initial launch function but for sustaining the momentum throughout the year and beyond.

The activities that would be taken up with immediate effect and sustained after launch of the planting programme on 5th June, 2025 would include widespread dissemination of information to the citizens through print and electronic media, FM Radio, Film theatres, town-hall and street level meetings. To create awareness amongst school and college students and to secure their proactive participation, essay writing, painting, quiz, and elocution competitions shall be organised. In addition, Green Run, Cycle Rallies and Eco walks on different days shall be organised. Likewise, lectures and panel discussions shall be

organised on climate change concerns, environment and biodiversity conservation issues. Screening films and documentaries on forests and wildlife conservation in various schools, colleges, universities and theatres could be integral part of the campaign.

The Headmasters of Schools, Principals of Colleges and Vice-chancellors of Universities, Persons in charge of the Residential schools and Hostels shall ensure cent per cent participation of teachers / faculty and students in promotion of awareness regarding the Mission / Programme and its impact on environment / climate change and ensure proactive participation in plantation and protection of the
planted saplings.

The participation of religious and social leaders and civil society institutions, community institutions, self-help groups must be secured in spreading awareness disseminating information on the Mission / Programme.

A Facebook page, Instagram and X/Twitter handle (Vanam-Manam) have to be launched. The same should be used on the Social media for canvassing the Mission / Programme and to provide an opportunity to all citizens to post their views, suggestions, value-added inputs, pictures and videos of plantation programme. Inspirational slogans, songs, video-clippings on relevant themes should be posted in the social media.

Programme Implementation

Micro-level Plantation Plans should be prepared for each and every village/ ULB covering vacant lands, institutions, industries, roads, canal bunds, degraded forest areas and homesteads. The Departments of Forest and Horticulture shall ensure production and delivery of appropriate plant material as decided by the District Collector. The Plan should include measures for plantation, protection, watering and maintenance of the plants for not less than four to five years. Only species appropriate to the area should be chosen for plantation. Planting shall be done only after adequate preparation, duly ensuring all essential safeguards for security and maintenance of plants.

The programme shall be implemented as people's programme and government's role is to facilitate and support the people's initiative. Every plant must have a 'guardian' who shall take

responsibility for protection, watering, application of manure, and proper nourishment to the plant. The Tree Guardian could be an individual or a group of individuals and may be responsible for one or more plants. In institutions, the head of the institution shall assign responsibility for the maintenance of plants to the staff / students of the institution.

Every citizen of Andhra Pradesh shall be involved in the plantation programme implementation. Active participation of people's representatives, government officials, academicians, NGOs, School children, College students, members of DWCRA Groups, SHGs and VSSs, media representatives, proactive involvement of Industries and Corporate enterprises, Paper Mills, CII, FICCI, temples, churches, mosques and other faith based institutions, etc. shall be secured.

After the launch of the programme on 5th June, the plantation will continue throughout the rainy season. Thereafter all measures for protection and watering will continue for the 2025 plantation season. The delivery of saplings required for planting on the launch day shall start with immediate effect, duly ensuring that they are carefully maintained at the site until plantation. Care must be taken to ensure plants do not suffer physical damage / 'transport shock' during transit from nursery to the planting site. All plants should be geotagged if they are not in blocks and should be geo-fenced if they are in blocks. The application developed for geo-tagging is available on the FMIS platform. Separate instructions will be issued in this regard.

Programme Coordination

The District Collector will coordinate and oversee the entire programme — encompassing planning, implementation, follow-up action, plant protection, and preparatory activities for 2025 plantation season and monitoring of the programme.

In every district, a District Vanam-Manam Programme (DVMP) Committee is hereby established under the Chairmanship of the District In-charge Minister, with the District Collector as the Member-Secretary. The DVMP Committee will include the Ministers belonging to the District, all key officials of the District, people's representatives, media representatives, Industry representatives, Banks, educational institutions, ULB representatives, citizens with passion for environment, etc. The District Collector will issue notification constituting the DVMP Committee after obtaining the approval of the District In-charge Minister. The Committee will meet as frequently as possible to plan, coordinate and monitor the programme. The officials

of Forest and Horticulture Department will assist and support the DVMP Committee.

One senior IFS Officer or one senior IAS officer will be appointed to support the District Vanam-Manam Programme Committee in each district. All Nodal Officers are requested to take up intensive tour in the respective districts, review the plantation plan prepared, suitably revise and upgrade where needed, closely monitor the programme implementation and ensure compliance of the above instructions.

In addition, the District Vanam-Manam Programme Committee will be established, similar Committees to be established at the Division, Mandal, Village, and ULB levels to ensure seamless planning, coordination and monitoring of Vanam-Manam Programme implementation. The head of the institution (offices, schools, hospitals, projects, public sector enterprises, etc.) will be responsible for implementation of the programme in the premises of the institution.

The District Collectors are instructed to take immediate measures to ensure successful launch of Mission Haritha Andhra Pradesh and its effective implementation. The Principal Chief Conservator of Forests (PCCF) and Commissioner Horticulture are requested to instruct all field officials of the department to provide proactive support for effective implementation of the programme. The Secretary / Commissioner of Education and Welfare Departments are requested to issue instructions to all the institutions under their control. All Secretaries to Government and Head of Departments (HODs) are requested to instruct the officials / autonomous institutions / public sector enterprises under their control to participate vigorously in successful launch and effective implementation of Mission Haritha Andhra Pradesh / Vanam-Manam Programme.

After planting, it is advocated that necessary care should be taken for survival of the plants. All the plants planted under Vanam-Manam should be Geo-tagged and monitored in due course of time by respective departments.

The Tree Guardian could be an individual or a group of individuals and may be responsible for one or more plants. In institutions, the head of the institution shall assign responsibility for the maintenance of plants to the staff/students of the institution.

Robust monitoring mechanism to be in place:

To ensure transparency, accountability, and real-time management of the greening initiatives, a robust ICT-enabled framework shall be rigorously implemented:

a) **Geo-Tagging of Plantations:** All plantation activities will be geo-tagged using dedicated mobile applications (Android and iOS) by field staff. This will capture GPS coordinates, planting dates, sapling species and numbers, land ownership, responsible department, and "before & after" photographs.
b) **Centralized Spatial Database:** All geo-tagged data will be stored in a cloud-hosted spatial database (e.g., Post GIS) with unique IDs, categorized by district, department, and scheme. Periodic updates on plantation health, survival rates, and growth status will be uploaded. Role-based access controls shall ensure data security.
c) **Satellite-Based Verification and Analytics:** Integration with satellite imagery platforms (ISRO's Bhuvan, Sentinel-2) will enable overlaying plantation locations on high-resolution data. NDVI and NDRE indices will be analyzed over time to assess vegetation health and growth trends, with successful verifications tagged as "Satellite Verified."
d) **Drone-Based Spot Verification:** Drones with AI-driven canopy and sapling detection capabilities will be deployed for spot verifications in selected high-risk or randomly sampled areas. Geo-tagged images will be analyzed to count saplings, identify gaps, and assess canopy health, providing high-resolution ground truth.
e) **Manual and Third-Party Ground Verification:** Forest Department auditors and external evaluators will conduct physical inspections, assessing survival rates and tree health. Audit findings, photographs, and remarks will be uploaded to the system.
f) **Data Consolidation and Scoring Engine:** A backend analytics engine will consolidate data from all sources (satellite, drone, manual audits) to calculate a comprehensive "Verification Score" for each plantation record, ensuring reliability. Aggregated scores will inform performance evaluations and resource allocation.
g) **Real-Time Dashboards:** Interactive, role-based dashboards will provide key stakeholders (Chief Minister, Deputy Chief Minister, PCCF, Collectors etc.,) with real-time metrics, live maps of geo-tagged plantations, survival rates, and performance indicators. A public-facing portal may also be launched to enhance transparency and citizen engagement.

This holistic action plan, driven by strong leadership, advanced technology and most importantly the active participation of every citizen will propel Andhra Pradesh towards its ambitious goal of achieving 50% green cover by 2047, ensuring a sustainable and prosperous future for generations to come.

G. ANANTHA RAMU
SPECIAL CHIEF SECRETARY TO GOVERNMENT